

### REMARKS

The specification has been amended to correct minor typographical errors in paragraphs on pages 1, 3, 4, 10, 11, 12, 13, 15, 16, 17 and 18, and in the Abstract. In particular the paragraph beginning on page 11, line 21 through page 12, line 4, has been amended to delete the superfluous mention of alkoxy moieties as possible values for the moiety "R" in the formulas  $R-SO_3M$  and  $R-SO_4M$ . The Applicants note that if "R" were an alkoxy moiety in the formula  $R-SO_3M$ , then the said formula becomes  $R-SO_4M$ , which is redundant. Furthermore, if "R" were an alkoxy moiety in the formula  $R-SO_4M$ , then the said formula becomes  $R-SO_5M$ , which formula is not chemically possible. Therefore, no subject matter has been surrendered and the scope of the invention has not been narrowed in deleting said alkoxy moiety in this context. No new matter has been added to the specification under 35 U.S.C. §132 in making any of these corrections.

A new paragraph has been added at the beginning of the "Summary of The Invention" section on page 3 of the specification. The said new paragraph is simply a copy of amended claim 1 rewritten in sentence form, and is being added under the "Summary of The Invention" section on page 3 so that those skilled in the art may better understand aspects of the invention. No new matter has been added to the specification under 35 U.S.C. §132 in adding this new paragraph.

Claims 1, 2, 4-6 and 8-20 are pending in the present patent application. Claims 3 and 7 have been cancelled without prejudice or disclaimer to the subject matter contained therein.

Claims 1, 12 and 18 have been amended for clarity to specify that a matrix phase comprises a polymethylmethacrylate. Antecedent basis for the phrase "a polymethylmethacrylate" may be found in the specification, for example, on page 14 in the paragraph beginning on line 13.

Claims 1, 2, 8, 9, 12, 13, 15, 18 and 19 have been amended for clarity to specify that a graft copolymer comprises a substrate rubber. Antecedent basis for the phrase "substrate rubber" may be found in the specification, for example, on page 4 in the paragraph beginning on line 20.

Claims 11 and 17 have been amended for clarity to specify that the composition may further comprise a colorant. Antecedent basis for the term "colorant" may be found in the specification, for example, on page 17 in the paragraph beginning on line 20.

Claims 12 and 18 have been amended for clarity to change the phrase "matrix phase derived from a PMMA and a terpolymer" to "matrix phase comprising a PMMA

and a terpolymer". Antecedent basis for the phrase "matrix phase comprising a PMMA and a terpolymer" may be found in the specification, for example, in claim 1.

Claims 1, 2, 4-6 and 8-20 have also been amended to correct minor typographical errors. The Applicants note for the record that these claim amendments have been made to clarify the subject matter of the invention, and not in response to any rejection over the prior art. No new matter has been added to the claims under 35 U.S.C. §132 in making the claim amendments or in adding the new claims.

### **35 U.S.C. § 102 Rejections :**

The Examiner has rejected claims 1-10, 12-16 and 18-20 under 35 U.S.C. 102(b) as being anticipated by **Seitz** et al. (USP 5,120,788). The Applicants courteously traverse these rejections with respect to the claims as amended.

The Examiner states the following (quote): "Seitz et al. disclose a composition in which a butyl acrylate rubber phase is grafted with a mixture of styrene/acrylonitrile/ethylhexyl acrylate and then blended with styrene/acrylonitrile polymer containing 35% acrylonitrile. Note the Examples and Table in column 6 in this regard. While it is not explicitly disclosed that the matrix phase contains a styrene/acrylonitrile/ethylhexyl acrylate copolymer as is embraced by applicants' matrix phase "ai", this would be inherent given that grafting is never 100% efficient and given that applicants' claims recite absolutely no lower level of component "ai" and even a miniscule amount of styrene/acrylonitrile/ethylhexyl acrylate copolymer would meet the limitations of the claims. Therefore applicants' limitation that a matrix phase must contain component "ai" reasonably appears to be inherent. Since all of applicants' components reasonably appear to be inherent in the reference, applicants' characteristics also reasonably appear to be inherent. In any case, note that column 4 lines 45-59 of the patent specifically discloses that the hard component C may include styrene acrylonitrile methylmethacrylate terpolymer as well as styrene acrylonitrile copolymer and that the components C may be used "in mixtures". Therefore use of a combination of styrene/acrylonitrile copolymer and styrene/acrylonitrile/methylmethacrylate terpolymer would have been obvious to a practitioner having ordinary skill in the art at the time of the invention in the expectation of adequate results absent any showing of surprising or unexpected results."

The Applicants respectfully submit that in one of its embodiments the present invention provides an acrylate-styrene-acrylonitrile type (ASA) composition comprising:

- a) a matrix phase comprising (i) a terpolymer of a vinyl carboxylic acid ester monomer, a vinyl aromatic monomer and a vinyl cyanide monomer and (ii) a polymethylmethacrylate (PMMA); and

- b) a graft copolymer comprising (i) a substrate rubber and (ii) a superstrate copolymer, wherein the substrate rubber comprises a rubber derived from a vinyl carboxylic acid ester monomer and wherein the superstrate copolymer comprises a copolymer derived from both a vinyl aromatic monomer and a vinyl cyanide monomer.

The Applicants respectfully submit that there is no teaching or suggestion in **Seitz** of any composition which comprises a matrix phase comprising (i) a terpolymer of a vinyl carboxylic acid ester monomer, a vinyl aromatic monomer and a vinyl cyanide monomer and (ii) a polymethylmethacrylate (PMMA) as required by the claims of the instant invention.

Furthermore there is no teaching or suggestion in **Seitz** of a method to improve the translucency of an acrylate-styrene-acrylonitrile type composition, said method comprising: a) blending about: (i) 25 to about 75 percent of a matrix phase comprising (A) a polymethylmethacrylate (PMMA), and (B) a terpolymer derived from a vinyl carboxylic acid ester monomer, a vinyl aromatic monomer and a vinyl cyanide monomer; and (ii) about 25 to 75 weight percent of a graft copolymer comprising a substrate rubber and a superstrate copolymer, wherein the substrate rubber comprises a rubber derived from a vinyl carboxylic acid ester monomer and the superstrate copolymer comprises a copolymer derived from both a vinyl aromatic monomer and a vinyl cyanide monomer; and b) adjusting the ratio of A:B in said matrix phase such that said acrylate-styrene-acrylonitrile type composition has an opacity of less than about 91%, as required by the claims of the instant invention.

In view of these remarks, it is respectfully requested that the rejection of claims 1-10, 12-16 and 18-20 under 35 U.S.C. 102(b) as being anticipated by **Seitz et al.** be withdrawn.

### 35 U.S.C. § 103(a) Rejections :

The Examiner has rejected claims 1-10, 12-16 and 18-20 under 35 U.S.C. 103(a) as being obvious over **Seitz et al.** (USP 5,120,788). The Applicants courteously traverse these rejections with respect to the claims as amended.

The Examiner's basis for rejection under 35 U.S.C. 103(a) is apparently that which is summarized herein above under 35 U.S.C. 102(b) rejections.

The Applicants respectfully submit that in one of its embodiments the present invention provides an acrylate-styrene-acrylonitrile type (ASA) composition comprising:

- a) a matrix phase comprising (i) a terpolymer of a vinyl carboxylic acid ester monomer, a vinyl aromatic monomer and a vinyl cyanide monomer and (ii) a

polymethylmethacrylate (PMMA); and

- b) a graft copolymer comprising (i) a substrate rubber and (ii) a superstrate copolymer, wherein the substrate rubber comprises a rubber derived from a vinyl carboxylic acid ester monomer and wherein the superstrate copolymer comprises a copolymer derived from both a vinyl aromatic monomer and a vinyl cyanide monomer.

In another embodiment the present invention provides an acrylate-styrene-acrylonitrile type composition comprising: a) a matrix phase comprising (A) a polymethylmethacrylate (PMMA), and (B) a terpolymer derived from a vinyl carboxylic acid ester monomer, a vinyl aromatic monomer and a vinyl cyanide monomer, wherein the matrix composition of A:B is such that said composition has an opacity of less than about 91%.

In contrast to the instant invention, **Seitz** is directed to a composition which has a matrix phase ("hard component C" in **Seitz**) comprising one or more copolymers of a vinyl-aromatic monomer C1 and of a polar, copolymerizable, ethylenically unsaturated monomer C2 (kindly see **Seitz** column 4, lines 33-53; and Examples). There is no teaching or suggestion in **Seitz** of any composition comprising a matrix phase comprising a polymethylmethacrylate. Furthermore, there is no teaching or suggestion in **Seitz** of any composition wherein the ratio of components in the matrix phase is such that said composition has an opacity of less than about 91%. There is no motivation for anyone skilled in the art to prepare any composition comprising a matrix phase comprising a polymethylmethacrylate based on any teaching in **Seitz**. Furthermore, there is no guidance in **Seitz** for anyone skilled in the art to prepare any composition comprising a matrix phase comprising a polymethylmethacrylate as required by the instant claims. There is no motivation for anyone skilled in the art to prepare any composition having an opacity of less than about 91% based on any teaching in **Seitz**. In addition, there is no guidance in **Seitz** for anyone skilled in the art to prepare any composition having an opacity of less than about 91% as required by the instant claims.

Furthermore, in another of its embodiments the instant invention comprises a method to improve the translucency of an acrylate-styrene-acrylonitrile type composition, said method comprising: a) blending about: (i) 25 to about 75 percent of a matrix phase comprising (A) a polymethylmethacrylate (PMMA), and (B) a terpolymer derived from a vinyl carboxylic acid ester monomer, a vinyl aromatic monomer and a vinyl cyanide monomer; and (ii) about 25 to 75 weight percent of a graft copolymer comprising a substrate rubber and a superstrate copolymer, wherein the substrate rubber comprises a rubber derived from a vinyl carboxylic acid ester monomer and the superstrate copolymer comprises a copolymer derived from both a vinyl aromatic monomer and a vinyl cyanide monomer; and b) adjusting the ratio of A:B in said matrix phase such that said acrylate-styrene-acrylonitrile type composition has an opacity of

less than about 91%, as required by the claims of the instant invention. **Seitz** does not recognize or provide a solution for the problem recognized and solved by the inventors in the instant application, namely the problem of improving the translucency of an acrylate-styrene-acrylonitrile type composition. There is no motivation for anyone skilled in the art to improve the translucency of any acrylate-styrene-acrylonitrile type composition based on any teaching in **Seitz**. Furthermore, there is no guidance in **Seitz** for anyone skilled in the art to improve the translucency of any acrylate-styrene-acrylonitrile type composition as required by the instant claims.

In view of these remarks, it is respectfully requested that the rejection of claims 1-10, 12-16 and 18-20 under 35 U.S.C. 103(a) as being obvious over **Seitz et al.** be withdrawn.

The Examiner has also rejected claims 11 and 17 under 35 U.S.C. 103(a) as being obvious over **Seitz et al.** (USP 5,120,788). The Applicants courteously traverse these rejections with respect to the claims as amended.

The Examiner states the following (quote): "With regard to the use of pigments in the composition of **Seitz et al.** such is taught by patentees at column 5, line 36. An addition of such materials would have been obvious to a practitioner having ordinary skill in the art at the time of the invention absent any showing of surprising or unexpected results."

The Applicants respectfully submit that the compositions of the instant invention represent patentable subject matter over **Seitz** for reasons given herein above. Therefore, addition of a colorant to said compositions must also represent patentable subject matter. In view of these remarks, it is respectfully requested that the rejection of claims 11 and 17 under 35 U.S.C. 103(a) as being obvious over **Seitz et al.** be withdrawn.

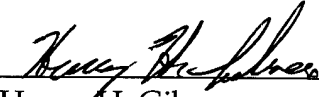
In view of the foregoing, the Applicants respectfully submit that the application is in condition for allowance. Favorable reconsideration and prompt allowance of the application are respectfully requested.

Should the Examiner believe that anything further is needed to place the application in even better condition for allowance, the Examiner is requested to contact the Applicants' undersigned representative at the telephone number below.

Respectfully submitted:

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